

Problem Set 4

Due *in lecture* on Monday, April 30th. Be sure to put your name on your problem set. Put “boxes” around your answers to the algebraic questions.

1. Consider an economy on a flexible exchange rate, and described by the IS-LM-IPR framework in the open economy handout.

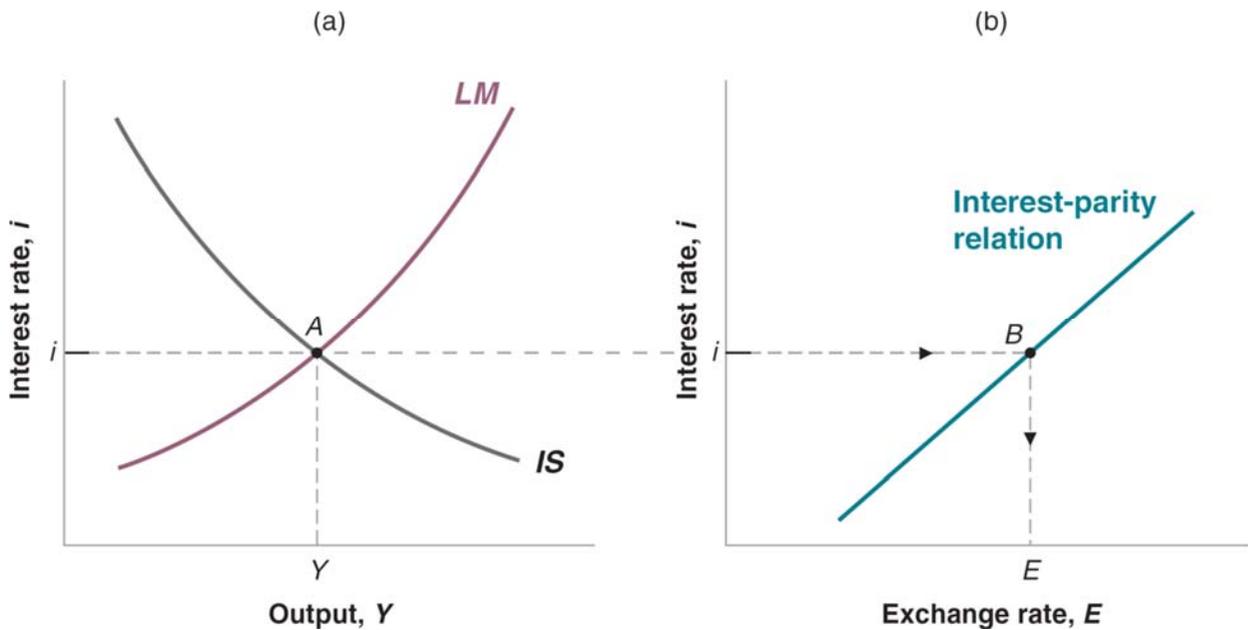


Figure 1

Note that the slope of the IS curve is flatter, the larger the (1) sensitivity of investment to the interest rate, and (2) the larger the sensitivity of net exports to the real exchange rate ϵ and the sensitivity of the real exchange rate to the interest rate (which is one when the foreign interest rate is held constant).

- 1.1 Suppose taxes are cut and government spending is increased. Using the IS-LM-IPR diagrams, show what happens to interest rates, output, and the exchange rate, assuming the Fed targets the interest rate, and the foreign interest rate is constant.
- 1.2 Suppose the Fed, fearing an overheating economy, tightens monetary policy. Show what happens to output and interest rates and the exchange rate.
- 1.3 Suppose in 1.1 the rest-of-world is so small so that the foreign interest rate rises one percentage point when the US interest rate rises by one percentage point (so that the interest differential remains constant). Draw the IS-LM-IPR graphs before the tax cut/spending increase takes place. Do the curves look the same as in Figure 1.

- 1.4 Following 1.3, show what happens when the tax cut/spending increase occurs. What component(s) of aggregate demand is crowded out?

2. Investment spending has been relatively low in the period after the great recession. Is this outcome attributable to (1) high interest rates, (2) low stock prices, (3) low corporate cash flows/profits, (4) high economic policy uncertainty, or none of the above?

3. In our standard AD-AS framework, Y_n moves independently of aggregate demand. Is it possible that the path of potential output can affect aggregate demand? If so, how?